

## ABSTRACT OF THE DISCLOSURE

A signal generating unit 2 is arranged to generate a filter changeover signal **a**, which indicates the changeover from a plurality of waveform reshaping units 4 to 7 (or 8 to 11) of a first group corresponding to the reception of the modulated signals to a plurality of waveform reshaping units 8 to 11 (or 4 to 7) of a second group, in cases where an electric power gain value of the transmission signal is changed, to send the changeover signal **a** to the filter selecting unit 3, to generate a new gain signal of which a new electric power gain value is changed from an electric power gain value of the gain signal, to send the new gain signal to the multipliers corresponding to the waveform reshaping units of the second group, and to successively send the gain signal having the electric power gain value to the multipliers 12 to 15 (or 16 to 19) corresponding to the waveform reshaping units of the first group during a prescribed time period after the change of the gain signal to the new gain signal.